

WHAT IS BEING CLAIMED IS:

1. A self-retaining urinary drainage catheter system, comprising:

5 (a) a longitudinally extending flexible tube having a predetermined outer diameter, an open distal end and a closed proximal end, said flexible tube defining at least one lumen, said closed proximal end having a plurality of longitudinally directed slits formed through a wall of said flexible tube defining a plurality of flexible tube slit portions; and,

10 (b) means for reversibly and radially displacing said plurality of flexible tube slit portions of said proximal end to a first configuration abutting in a non-continuous manner an inner surface of a urinary bladder, said first configuration of flexible tube slit portions having an outer diameter greater than said predetermined diameter of said flexible tube and defining a plurality of drainage apertures, and for displacing said plurality of flexible tube slit portions to a second configuration wherein said plurality of flexible tube slit portions has a diameter substantially equal to said predetermined outer diameter of said flexible tube, wherein said means do not substantially obstruct a lumen of said catheter, and said catheter is reversably insertable in a human being without using a sytlet.

20 2. The self-retaining urinary drainage catheter system as recited in Claim 1, wherein said means further comprises a wire control device longitudinally and slidably positioned within a lumen of said longitudinally extending flexible tube, said wire control device fixedly secured at a first end to an inner surface of said closed proximal end and having a length greater than a length of said

longitudinally extending flexible tube so that a second end of said wire control device protrudes through said open distal end.

5           3. The self-retaining urinary drainage catheter system as recited in Claim 2, wherein said wire control device further comprises a means for reversibly locking said wire control device in a predetermined position.

10           4. The self-retaining urinary drainage catheter system as recited in Claim 1, wherein said means for reversibly and radially displacing said plurality of flexible tube slit portions further comprises a reversibly inflatable balloon located between said plurality of flexible tube slit portions and connected by a flexible non-distensible tubing to an injectable valve situated adjacent to said open distal  
15           end, wherein said flexible non-distensible tubing is substantially coaxial with said longitudinally extending flexible tube and a fluid may be reversibly injected therein so as to expand said reversibly inflatable balloon.

20           5. The self-retaining urinary drainage catheter system as recited in Claim 4, wherein said reversibly inflatable balloon is substantially spherical.

6. The self-retaining urinary drainage catheter system as recited in Claim 4, wherein said reversibly inflatable balloon defines a simple closed non-spherical chamber, with a long axis and a short axis, said long axis being of greater length than said short axis, and said reversibly inflatable balloon is located with said long axis substantially perpendicular to a longitudinal axis of said longitudinally extending flexible tube, whereby inflation of said reversibly inflatable balloon displaces said plurality of flexible tube slit portions to said first configuration, and deflation of said reversibly inflatable balloon permits said plurality of flexible tube slit portions to displace to said second configuration.

7. The self-retaining urinary drainage catheter system as recited in Claim 2 wherein said wire control device is composed of a metal or non-metallic material with a predetermined stiffness and flexibility.

8. A self-retaining urinary drainage catheter system, comprising:  
(a) a longitudinally extending flexible tube having a predetermined outer diameter, an open distal end and a closed proximal end, said flexible tube defining at least one lumen, said closed proximal end having a plurality of longitudinally directed slits formed through a wall of said flexible tube and defining a plurality of flexible tube slit portions; and,  
(b) a wire control device, substantially coaxial with and longitudinally and slidably positioned within a lumen of said longitudinally

extending flexible tube, and fixedly secured at a first end to an inner surface of said closed proximal end, and having a length greater than a length of said longitudinally extending flexible tube so that a second end protrudes through said open distal end, for reversibly and radially displacing said plurality of flexible tube slit portions of said proximal end to a first configuration abutting in a non-continuous manner an interior surface of a urinary bladder, said first configuration of said plurality of flexible tube slit portions having an outer diameter greater than said predetermined diameter of said flexible tube and defining a plurality of drainage apertures, and displacing said plurality of flexible tube slit portions to a second configuration wherein said plurality of flexible tube slit portions has a diameter substantially equal to said predetermined outer diameter of said flexible tube, wherein said wire control device does not substantially obstruct a lumen of said catheter, and said catheter is reversibly insertable in a human being without using a sytlet.

9. A self-retaining urinary drainage catheter system, comprising:
- (a) a longitudinally extending flexible tube having a predetermined outer diameter, an open distal end and a closed proximal end, said flexible tube defining at least one lumen, said closed proximal end having a plurality of longitudinally directed slits formed through a wall of said flexible tube and defining a plurality of flexible tube slit portions; and,
  - (b) a reversibly inflatable balloon located between said plurality of flexible tube slit portions and connected to an injectable valve situated adjacent

to said open distal end by a flexible non-distensible micro-catheter, wherein a fluid may be reversibly injected so as to expand said reversibly inflatable balloon for reversibly and radially displacing said plurality of flexible tube slit portions of said proximal end to a first configuration abutting in a non-continuous manner an inner surface of a urinary bladder, said first configuration of flexible tube slit portions having an outer diameter greater than said predetermined diameter of said flexible tube and defining a plurality of drainage apertures, and displacing said plurality of flexible tube slit portions to a second configuration wherein said plurality of flexible tube slit portions has a diameter substantially equal to said predetermined outer diameter of said flexible tube, wherein said microcatheter does not substantially obstruct a lumen of said catheter, and said catheter is reversably insertable in a human being without using a sytlet.

10. The self-retaining urinary drainage catheter system as recited in Claim 9, wherein said reversibly inflatable balloon is substantially spherical.

11. The self-retaining urinary drainage catheter system as recited in Claim 9, wherein said reversibly inflatable balloon defines a simple closed non-spherical chamber and has a long axis and a short axis, said long axis being of greater length than said short axis, and said reversibly inflatable balloon is located with said long axis substantially perpendicular to a longitudinal axis of said longitudinally extending flexible tube, whereby inflation of said reversibly

inflatable balloon displaces said plurality of flexible tube slit portions to said first configuration, and deflation of said reversibly inflatable balloon displace said plurality of flexible tube slit portions to said second configuration.

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12. The self-retaining urinary drainage catheter system as recited in Claim 8, wherein said wire control device further comprises a means for reversibly locking said wire control device in a predetermined position.